

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2000

DateRun: 02/09/2000

Experimenters: Jason Marshall

ClientType: Metal

ProjectNumber: Project #1

Substrates: Aluminum, Stainless Steel

PartType: Coupon

Contaminants: Cutting/Tapping Fluids, Inks

Cleaning Methods:

Analytical Methods:

Purpose: Information request

Experimental Procedure: SUBSTRATE MATERIAL: Aluminum and Stainless steel
REQUEST: Would like a list of products that could be used to degrease light machining oils from aluminum and stainless steel parts in a sink-on-drum system.

Results: RESPONSE: The following table contains products that have been found to be effective under the general conditions listed.

| SCL # | Substrate | Cont | Process | Manufacturer | Product | Classification |
|-------------|-----------|------|-----------|--------------------|-------------------|--------------------------------|
| 95-407-07-2 | AL | OIL | IMMERSION | AW CHESTERTON | KPC 820 N | Alkaline aqueous |
| 95-410-03-2 | SS | OIL | SPRAY | AW CHESTERTON | KPC 820 N | Alkaline aqueous |
| 96-425-01-2 | SS | OIL | IMMERSION | BUCKEYE | SHOPMASTER | Alkaline Aqueous |
| 96-425-01-2 | SS | OIL | IMMERSION | SAFETY KLEENE | GREEN SOLVENT | |
| 96-425-01-2 | SS | OIL | IMMERSION | SAFETY KLEENE | GREEN SOLVENT | |
| 96-425-01-2 | SS | OIL | IMMERSION | T-SQUARE | HTF 10 B | Semi-Aqueous Terpene |
| 96-449-02-2 | SS | OIL | IMMERSION | ARDROX | 6333 | Alkaline aqueous |
| 96-449-02-2 | SS | OIL | IMMERSION | Calgon Corporation | AK 6215 | Alkaline Aqueous |
| 97-538-07-3 | SS | OIL | IMMERSION | ECOLINK | VORTEX | Semi-Aqueous Terpene |
| 97-538-07-3 | SS | OIL | IMMERSION | Oakite Products | INPROCLEAN 4000 T | Semi-Aqueous Terpene |
| 97-538-07-3 | SS | OIL | IMMERSION | SOLVENT KLEENE | D-GREEZE 500 | Hydrocarbon Solvent |
| 97-538-07-3 | SS | OIL | IMMERSION | SOLVENT KLEENE | D-GREEZE 500 | Hydrocarbon Solvent |
| 97-547-01-2 | SS | OIL | IMMERSION | FINE ORGANICS | FO2085 M | Ester |
| 95-467-01-8 | AL | OIL | IMMERSION | Oakite Products | INPROCLEAN 2500 | Alkaline Powder |
| 95-407-05-2 | AL | OIL | IMMERSION | Oakite Products | INPROCLEAN 3800 | Alkaline Aqueous |
| 98-561-02-4 | AL | OIL | IMMERSION | ZEP CO | DYNA 143 | Petroleum Distillates |
| 98-561-02-4 | AL | OIL | IMMERSION | ENVIROSOLUTIONS | SOLSAFE 245 | Alcohol-aliphatic hydrocarbons |
| 98-561-02-4 | AL | OIL | IMMERSION | SAFE CLEANUP | SUPER-NEUTRAL | Neutral Aqueous |

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|--------------|----|-----|-----------|--------------------|-------------------------------|-----------------------|
| 98-561-04-4 | AL | OIL | IMMERSION | SAFETY KLEENE | PREMIUM GOLD | Petroleum Distillates |
| 98-561-04-4 | AL | OIL | IMMERSION | AG ENVIRONMENTAL | SOY GOLD 1000 | Soy Methyl Ester |
| 98-561-04-4 | AL | OIL | IMMERSION | SAFE CLEANUP | SUPER-NEUTRAL | Aqueous |
| 98-561-04-4 | AL | OIL | IMMERSION | ZEP CO | DYNA 143 | Petroleum Distillates |
| 98-674-03-2 | AL | OIL | IMMERSION | ECOLINK | VORTEX | Semi-Aqueous Terpene |
| 98-674-04-2 | AL | OIL | IMMERSION | WATER | WATER | Aqueous |
| 99-683-02-2 | AL | OIL | IMMERSION | WATSON | FORMULA 7300 | Alkaline Aqueous |
| 99-683-02-2 | AL | OIL | IMMERSION | WATSON | FORMULA 7001-CP | Alkaline Aqueous |
| 98-561-03-4 | AL | OIL | IMMERSION | SAFE CLEANUP | SUPER-NEUTRAL | Neutral Aqueous |
| 99-695-03-3 | SS | OIL | SPRAY | US POLYCHEM | POLYSPRAY 790 P | Alkaline Aqueous |
| 99-692-02-2 | SS | OIL | IMMERSION | TWIN RIVERS | METHYL ESTER 1618 | Ester |
| 99-692-02-2 | SS | OIL | IMMERSION | SOLVENT KLEENE | D-GREEZE 500 | Hydrocarbon Solvent |
| 99-692-02-2 | SS | OIL | IMMERSION | SOLVENT KLEENE | D-GREEZE 500 | Hydrocarbon Solvent |
| 99-692-02-2 | SS | OIL | IMMERSION | Oakite Products | INPROCLEAN 4000 T | Semi-Aqueous Terpene |
| 99-692-02-2 | SS | OIL | IMMERSION | ECOLINK | VORTEX | Semi-Aqueous Terpene |
| 99-6100-02-2 | SS | OIL | IMMERSION | BRANSON | GP | Alkaline Aqueous |
| 99-6100-02-2 | SS | OIL | IMMERSION | MATCHLESS | MC 580 | Alkaline Aqueous |
| 99-6100-02-2 | SS | OIL | IMMERSION | Oakite Products | INPROCLEAN 3800 | Alkaline Aqueous |
| 99-6100-02-2 | SS | OIL | IMMERSION | GEMTEK | SC Aircraft & Metal | Alkaline Aqueous |
| 99-6100-02-2 | SS | OIL | IMMERSION | SAVOGRAN | Dirtex Prepaint Cleaner | Alkaline Aqueous |
| 99-6100-02-2 | SS | OIL | IMMERSION | WATER | WATER | Aqueous |
| 99-6100-03-4 | SS | OIL | IMMERSION | MATCHLESS | MC 580 | Alkaline Aqueous |
| 99-6100-03-4 | SS | OIL | IMMERSION | MATCHLESS | MC 580 | Alkaline Aqueous |
| 99-792-03-2 | SS | OIL | IMMERSION | AW CHESTERTON | KPC 820 N | Alkaline aqueous |
| 99-792-03-2 | SS | OIL | IMMERSION | Calgon Corporation | Geo-Guard 2215 | Alkaline Aqueous |
| 99-792-03-2 | SS | OIL | IMMERSION | US POLYCHEM | Polyspray 790 P | Alkaline Aqueous |
| 99-792-04-4 | SS | OIL | IMMERSION | AW CHESTERTON | KPC 820 N | Alkaline aqueous |
| 99-792-04-4 | SS | OIL | IMMERSION | Calgon Corporation | GEO-GUARD 2215 | Alkaline Aqueous |
| 99-7111-02-4 | SS | OIL | IMMERSION | SAFESCIENCE | Engine Degreaser | |
| 99-7103-04-4 | SS | OIL | IMMERSION | NEW PIG | Degreaser | |
| 99-7103-05-4 | SS | OIL | IMMERSION | NEW PIG | Hoofmark All Purpose | |
| 99-7103-05-4 | SS | OIL | IMMERSION | NEW PIG | Hoofmark Industrial Degreaser | |

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|----------------|-----|-----------|------------------------|----------------------|------------------|
| 99-7102-04-4SS | OIL | IMMERSION | Oakite Products | INPROCLEAN 3800 | Alkaline Aqueous |
| 99-7103-06-4AL | OIL | IMMERSION | Ensolve Biosystems | GREASE FEAST | Neutral Aqueous |
| 99-7103-06-4AL | OIL | IMMERSION | UNITED Laboratories | UNITED 450 ALL CLEAR | Aqueous |
| 00-7103-07-4AL | OIL | IMMERSION | EnviroSan Products Ltd | SOLUTOIN 2000 | |
| 00-7103-07-4AL | OIL | IMMERSION | Mirachem Corporation | MIRACHEM 500 RTU | Alkaline Aqueous |
| 00-7103-07-4AL | OIL | IMMERSION | Mirachem Corporation | MIRACHEM 500 | Alkaline Aqueous |

Summary:

Conclusion: Cleaning projects vary from case-to-case. To obtain more detailed information about any of the listed trials or products, contact the lab at (978)934-3133.